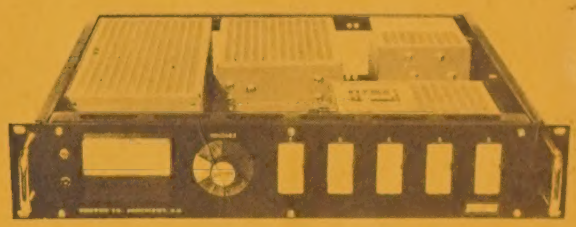
SORENSEN
POWER SUPPLIES

GENERAL MANUAL for

MULTI-OUTPUT RACK SYSTEMS and Accessories

5¼" METERED RACK



3½" METERED RACK

Features

- Up to 850 Watts in 3½"
- Up to 1400 Watts in 5¼"
- Up to 16 Outputs per Rack
- Six Rack Sizes
- Broad Selection of Options
- Unlimited Combinations

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A RAYTHEON COMPANY
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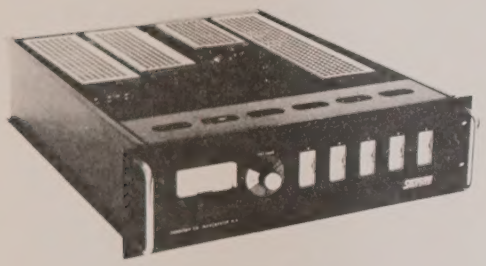

5¼" METERED RACK

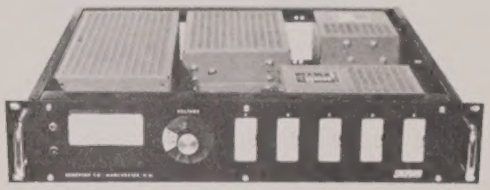

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TABLE of CONTENTS

	Page
Warranty	iii
Introduction	iv
Sorensen Rack Systems	1
Rack Adapters	2
Meter Panels	3
Rack Assembly Description	4
Panel Wiring Diagrams	6
Panel Output Wiring Diagrams	8
Replaceable Parts Lists	12
Module Models	
Requirements Assessment Aid	
Information Request Mailer Card	

ILLUSTRATIONS

Figure No.	Title	Page
1	300/500-Series Rack Adapter Dimensions	2
2	PM1/PM2 Meter Panels	3
3	PM300/PM500 Front-Panel Assembly	3
4	Typical Output Connections, PM300/PM500 Racks	5
5	PM1/PM2 Installation Diagram, PTM and QSA Modules	6
6A	Single-Output Wiring Diagram, PM300/PM500 Meter Panels	7
6B	PTM Dual-Output Wiring Diagram, PM300/PM500 Meter Panels	8

ILLUSTRATIONS (cont')

Figure No.	Title	Page
7A	PM1/PM2 Wiring Diagram, QSA Series	8
7B	PM1/PM2 Wiring Diagram, PTM 3V/5V Units	9
7C	PM1/PM2 Wiring Diagram, PTM 12-28V Units	9
8	Panel Potentiometer Options for PM300/PM500 Racks	10

TABLES

Table No.	Title	Page
1	Sorensen Power-Supply Module Sizes	1
2	AC Input Wiring	1
3	PM300/PM500 Panel Voltmeter Ranges	7
4	Diode Connections for Open Sense-Lead Protection	11
5	Replaceable Parts - PM1/PM2, (QSA Models)	12
6	Replaceable Parts - PM1/PM2, (PTM Models)	14
7A	Common Parts - PM300/PM500 Meter Panels	14
7B	Specific Parts - PM300/PM500 Meter Panels	14
8	Optional Panel Potentiometer Selector (PM300/PM500)	15

FIVE-YEAR WARRANTY

Sorensen Company warrants all parts of equipment of its manufacture, except special purpose tubes and semi-conductor devices which carry their own manufacturer's warranty, to be free from defects caused by faulty material or poor workmanship. Sorensen Company warrants its products to conform to applicable commercial or military specifications when confirmed on the Order Acknowledgment form to be free from defects caused by faulty material or poor workmanship. Sorensen Company's obligation is limited under the warranty to repair or replacement of products in kind, or at its option to issuance of a credit of original purchase price. Returns must be accompanied by a Sorensen Company Return Material Authorization form and conform to standard conditions for adjustment. The aforesaid warranty shall expire five (5) years following the last day of the month of shipment from Sorensen Company's plant. The foregoing states the entire warranty extended by Sorensen Company. No other warranty, expressed or implied, is made and, specifically, Sorensen Company makes no warranty of merchantability or fitness for any purpose. In no case shall Sorensen Company be liable for any special or consequential damages. Authorization must be obtained prior to return of defective items.

SORENSEN COMPANY

INTRODUCTION

Industrial demand for modular power supplies continues to grow as newer, faster, and more efficient electronic systems are developed. Sorensen Company has kept pace with the development of the medium-power QSA and PTM series, the higher power (to 700 watts) STM switching-transistor series, and the new high-performance SSD switching series

Sorensen's power-supply rack adapters provide multiple power output capability in a conveniently small space. Typical applications group several modular supplies, with individual current meter readouts, in a compact, custom-designed rack assembly. These supplies combine exceptional power density and high output efficiency with the convenience of rack mounting.

This systems manual supplements general rack applications data with photos, interconnection drawings, wiring diagrams, schematics and parts lists. Sufficient data is provided to enable the user to design and fabricate custom rack-mount systems. Mounting dimensions for modular power supplies are detailed in the individual instruction manuals.

At the end of the manual are representations of currently available Sorensen modular power supplies. Included are module size designations and overall dimensions. This data can be used to determine space requirements in a particular rack assembly.

The "Requirements Assessment Aid" sheet may be used to summarize system requirements if factory assistance is required. For additional information, return mailer card included at the back of the manual, or contact:

Sorensen Company
676 Island Pond Road
Manchester, N. H. 03103

Attn: Marketing Dept.

Tel: (603)668-4500
TWX: 710-220-1339

SORENSEN
RACK SYSTEMS

Sorensen rack assemblies (Figure 1) offer a standard 19-inch width, two heights, three depths, and are supplied with or without slide adapters, and with or without metering.

Any of Sorensen's modular power supplies may be inserted into single or multiple-output rack systems. These modulars include the new DAP D/A programmer, the high efficiency SSD and STM switchers, the PTM's (singles and duals), the wide range QSA's, and the encapsulated MMS/D's and CMS/D's.

Two basic metering schemes are available:

The first consists of quarter-rack meter panels complete with volt-ammeter, monitoring binding posts and fuse holders (Figure 2). These panels may be used with the PTM and QSA series. Panels may be shipped separately or installed in AC-300 or AC-500 racks at the factory.

The second metering system consists of full-rack metering panels (Figure 3) for all products in Sorensen's modular line. The panels are available with a single, selectable-scale voltmeter and up to five current-monitoring meters. These panels are factory-calibrated and are not designed for field installation.

Table 1

Sorensen Power-Supply Module Sizes
(See Page 16)

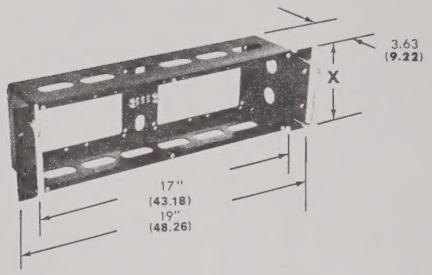
Module	Height"	Width"	Depth"
I	3-5/16	3-7/8	6-1/2
II	3-5/16	5-1/8	6-1/2
III	3-5/16	5-1/8	9-1/2
IIIA	3-5/16	5-1/8	14
IIIB	5-1/8	5-1/8	9-1/2
IVA	4-15/16	7-1/2	10-1/2
VI	4-15/16	7-1/2	14

Table 2-AC Input Wiring

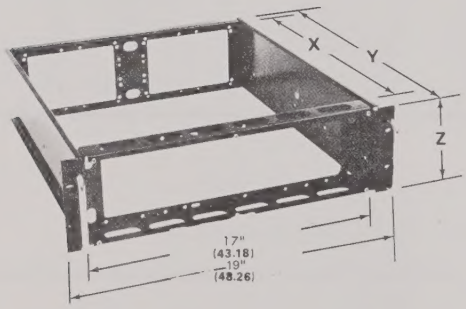
Module Series	TB1-1 Blk to Terminal: (AC High)	TB1-2 White to Terminal: (AC Low/Neutral)	TB1-3 Green to Terminal: (Chassis Grd)
QSA I, II, III (7-Terminal)	6*	7	5
PTM (All)	6	7	5
SSD & STM (All)	7	6	5

*If VP (overvoltage protector) is used, a-c line fuse (ref. QSA instruction manual) is wired in series with the black lead and this terminal.

RACK ADAPTERS



Model	X	AC Input Terminal
AC 300	3.5 (8.89)	Inside chassis at right edge
AC 500	5.25 (13.34)	Inside chassis at center



Model	X	Y	Z	Sorensen P/N Chassis Slide	AC Input Terminal
AC 318	15 (38.10)	17.5 (44.45)	3.5 (8.89)	587552-1	At rear, left edge
AC 320	17.5 (44.45)	20 (50.8)	3.5 (8.89)	587552-2	
AC 518	15 (38.10)	17.5 (44.45)	5.25 (13.34)	587552-1	At rear, center
AC 520	17.5 (44.45)	20 (50.8)	5.25 (13.34)	587552-2	

Dimensions in inches & (cm)

Figure 1
300/500 Series
Rack-Adapter Dimensions

METER PANELS

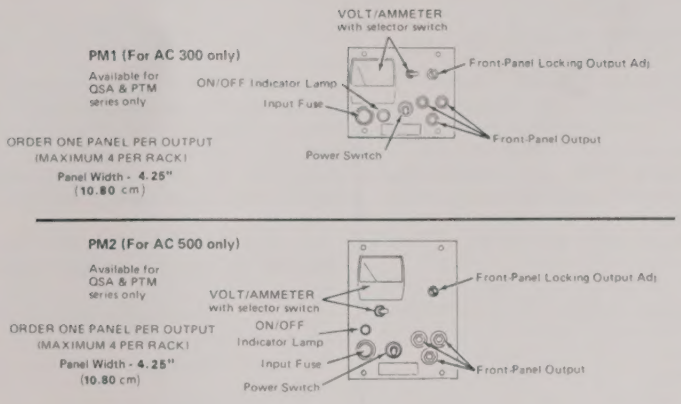
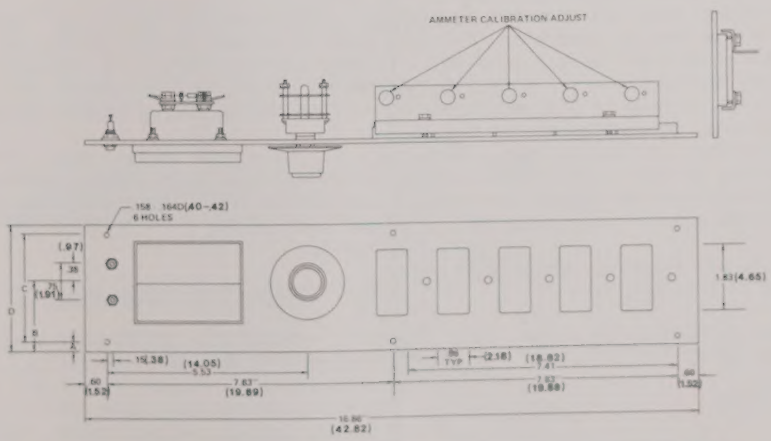

PM1 (For AC 300 only)
Available for QSA & PTM series only
ORDER ONE PANEL PER OUTPUT (MAXIMUM 4 PER RACK)
Panel Width - 4.25" (10.80 cm)
VOLT/AMMETER with selector switch
ON/OFF Indicator Lamp
Input Fuse
Power Switch
Front-Panel Locking Output Adj
Front-Panel Output
PM2 (For AC 500 only)
Available for QSA & PTM series only
ORDER ONE PANEL PER OUTPUT (MAXIMUM 4 PER RACK)
Panel Width - 4.25" (10.80 cm)
VOLT/AMMETER with selector switch
ON/OFF Indicator Lamp
Input Fuse
Power Switch
Front-Panel Locking Output Adj
Front-Panel Output

Figure 2
PM1/PM2 Meter Panels



Model	Description	A	B	C	D
PM-300	3½" Panel	0.26 (0.66)	1.91 (4.85)	2.94 (7.47)	5.47 (8.81)
PM-500	5¼" Panel	0.26 (0.66)	2.79 (7.09)	4.69 (11.91)	5.22 (13.26)

Dimensions in inches(cm)

Figure 3
PM300/PM500 Front-Panel Assembly

RACK ASSEMBLY DESCRIPTION

1. AC 300/500 Rack Assemblies (Figure 1)

The AC 300 and AC 500 comprise the "short" (3-5/8") depth series of Sorensen rack assemblies, differing only in height. The rack a-c input terminal strip (TB1) is factory-wired to each module in the assembly (Table 2) and it is only necessary to attach a line cord or other input wiring to this terminal strip. Power-supply d-c outputs are available at the individual module terminal strip.

Any of the Sorensen meter panels; PM1/PM2 (Figure 2) or PM300/PM500 (Figure 3), may be used with the "short" racks.

NOTE

When mounting module size I units (Table 1) on the AC500 rack, two mounting brackets (Sorensen part number 73-2747) must be ordered separately.

2. AC 318/320/518/520 Rack Assemblies

These rack models comprise the standard series of Sorensen rack assemblies, with heights of 3-1/2 and 5-1/4 inches, and depths of 18 and 20 inches (Figure 1). All a-c inputs are factory-wired (Table 2) and terminate at TB1 on the rear chassis. D-C output wiring (customer-installed) should also be connected at the module terminal board. When the assembly contains modules mounted at the rear (the most common configuration), connection to the module terminal strip is relatively straightforward. When modules have been mounted at the front of the rack, cabling must be installed from the output terminal strip of each unit to the chassis rear panel.

Sorensen meter panels PM300/500 (Figure 3) are designed for specific rack assemblies:

PM300; Used in AC 318/320 racks
PM500; Used in AC 518/520 racks

NOTE

When mounting module size I units (Table 1) on the AC518/520 racks, two mounting brackets (Sorensen part no. 73-2747) must be ordered separately.

3. Panel Meters PM1/PM2 (Figure 2)

PM1/PM2 series panel meter assemblies are designed for use in the AC300 (3½"H) and AC500 (5¼"H) racks respectively, and are mounted at the front of the rack assembly. The panel wiring harnesses are connected to the associated power-supply module, normally mounted directly behind the meter panel assembly.

Applications for the PM1/PM2 meter panels are limited to the following power supplies:

A. QSA series, modules I, II or III (see Figure 5 for wiring connections).

B. PTM series, all single-output modules (Figure 5).

NOTE

Internal wiring of PM1/PM2 panels corresponding to specific modules is shown schematically in Figures 7A/B/C.

When PM1/PM2 panels are installed, unit output power from each module is available at the two front-panel binding posts. If desired, the user may bring the dc output to the rear of the rack by connecting cabling to the rear of the binding posts.

The module sense leads terminate at the panel binding posts. For remote sensing, the user should remove the sense leads from the binding posts. External cabling may then be connected to these sensing leads.

4. PM300/PM500 Meter Panels (Figure 3)

PM300/PM500 meter panels are designed for use in all Sorensen rack assemblies, 3½-and5¼-inch heights respectively, (Figure 1) and are mounted at the front of the chassis (see cover photos). Up to five output current meters are available, each prewired at the factory to a specific module (Figures 6A, B). Voltage-selector switch S101 on the front panel selects the power-supply output to be monitored. The selected output appears on multi-range panel meter M1 (see Table 3) and at voltage-monitoring jacks E101/E102 on the front panel. These jacks are internally connected to the "sense" terminals of each module. See Figures 6A/B for PM 300/500 wiring diagrams.

In the PM 300/500 meter panels, the ammeter requires a shunt connected between the module positive output terminal and the load. At the load end is a support terminal (Figure 4) which serves as the positive ouput load connector. The negative load lead is connected directly to the module terminal board.

As shown in the figure, the module positive sense lead is jumpered directly to the support terminal. The negative sense connection remains at the module terminal board. For remote-sensing applications, the sense jumper must be removed from the support terminal, and the positive sense lead connected to the sense terminal at the module.

Dual-output supplies (such as the PTM Dual series) are provided with a single ammeter to indicate positive output current. A single shunt and support terminal is used, with the common and negative output connections remaining at the terminal board.

5. Rack System Options

1. AC line cord; connected to the a-c input terminal board.

2. Panel AC power switch or circuit breaker; for use with the PM 300/500 panels, or with blank panels. These control the a-c input power to the entire rack assembly (ref. Figure 6A, page 7).

3. Panel AC pilot lamp; used in panels per item 2 preceding. Indicates power ON condition of modules in rack assembly (ref. Figure 6A).

4. Open sense-lead diode protection; for remote sensing applications. Prevents overvoltage conditions induced in the event of accidental opening of the sense lead of a remotely-sensed load. Table 4 on page 11 summarizes diode connections to Sorensen modules.

5. Panel-mounted voltage-adjust potentiometers; for use with PM 300/500 meter panels or with blank panels. Set operating levels of up to five modules in the rack assembly (ref. Figure 8 on page 10, wiring diagram).

6. AC input line fuse; for QSA modules (other Sorensen modulars are internally fused as shipped). Factory-installed on a bracket on the QSA module (ref. Figure 6A, page 7). Fuse is optional except when QSA is purchased with the VP (overvoltage protection) option, where a-c line fusing is included.

7. Miscellaneous options (not detailed in this manual): Redundant-system diode protection; alarm relays; BITE (built-in test equipment) alarms; d-c output lamps; rear cover plates with d-c output terminal strips/connectors, etc. Supplementary instructions are issued as required for all special-option designs.

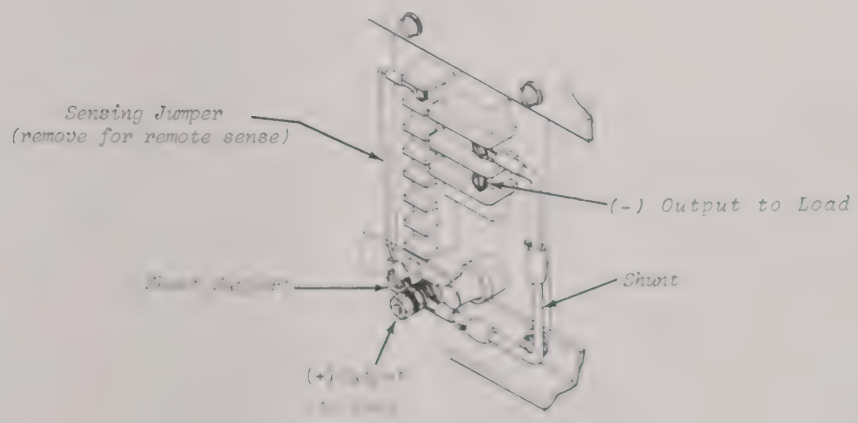
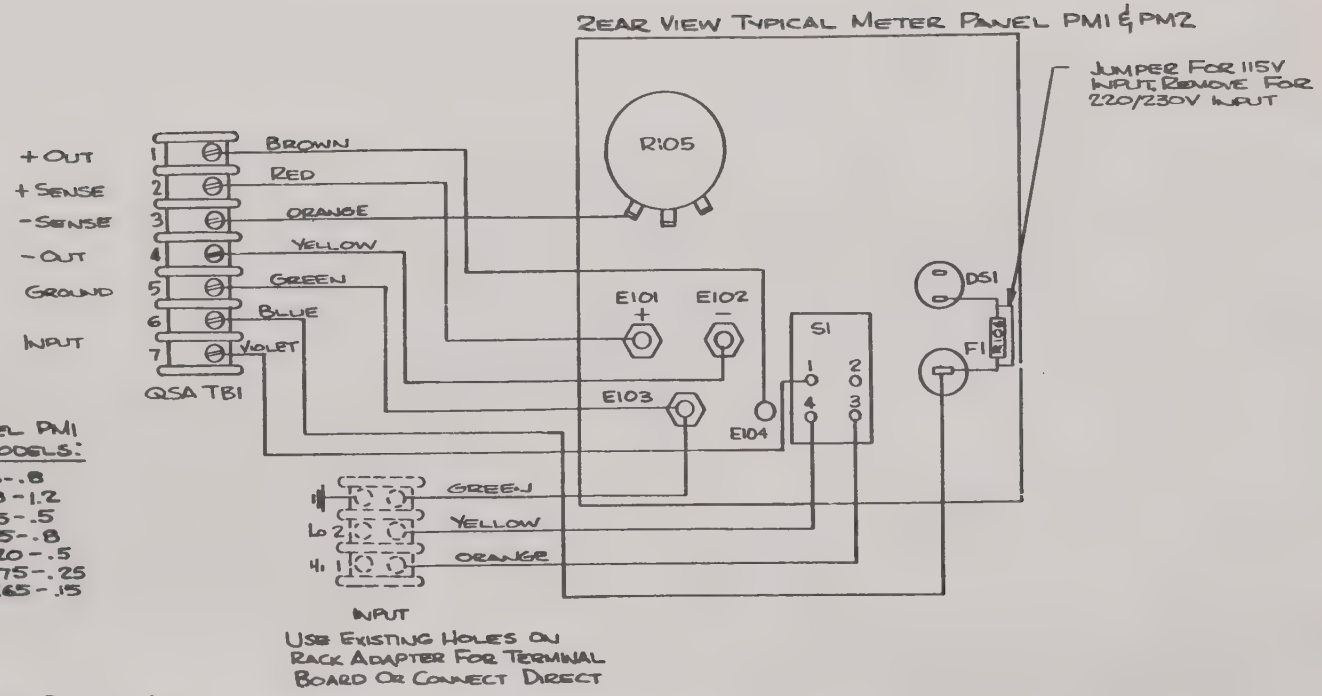


Figure 4
Typical Output Connections
PM300/500 Racks



WIRING METER PANEL PM1 OR PM2 TO QSA MODELS:

5-6.4	18-1.1	48-.8
10-4.4	18-1.9	48-1.2
10-2.2	18-3.0	75-.5
10-3.7	28-.7	75-.8
12-1.3	28-1.3	120-.5
12-2.2	28-2.0	175-.25
12-3.8	48-.4	265-.15

NOTES:

1) SET OUTPUT VOLT ADJUST CONTROL IN POWER SUPPLY TO ZERO(C'CLOCKWISE)
2) REMOVE SENSING LINKS BETWEEN TERMINALS 1-2 & 3-4

Figure 5
PM1/PM2 Installation Diagram
PTM and QSA Modules

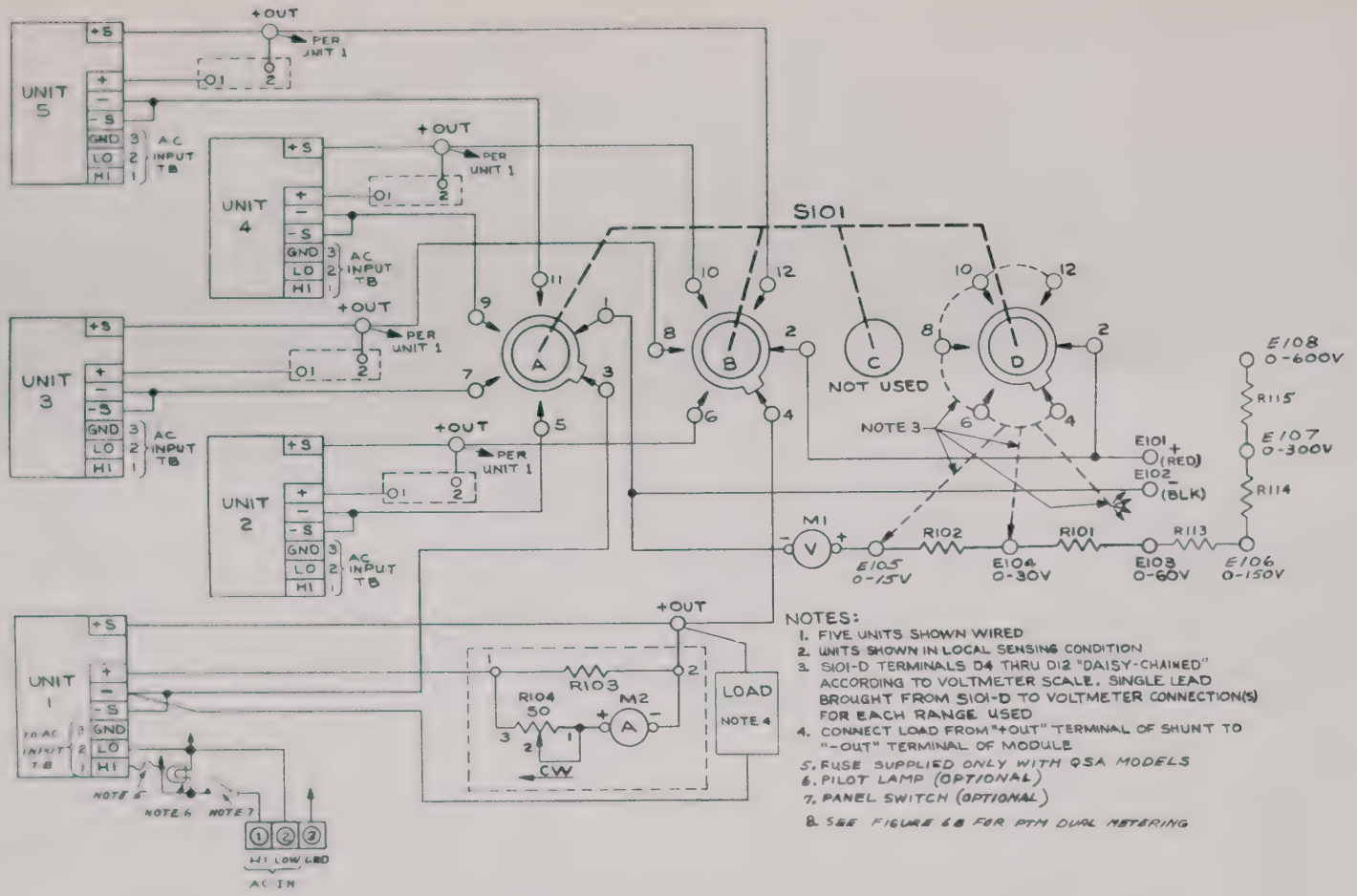
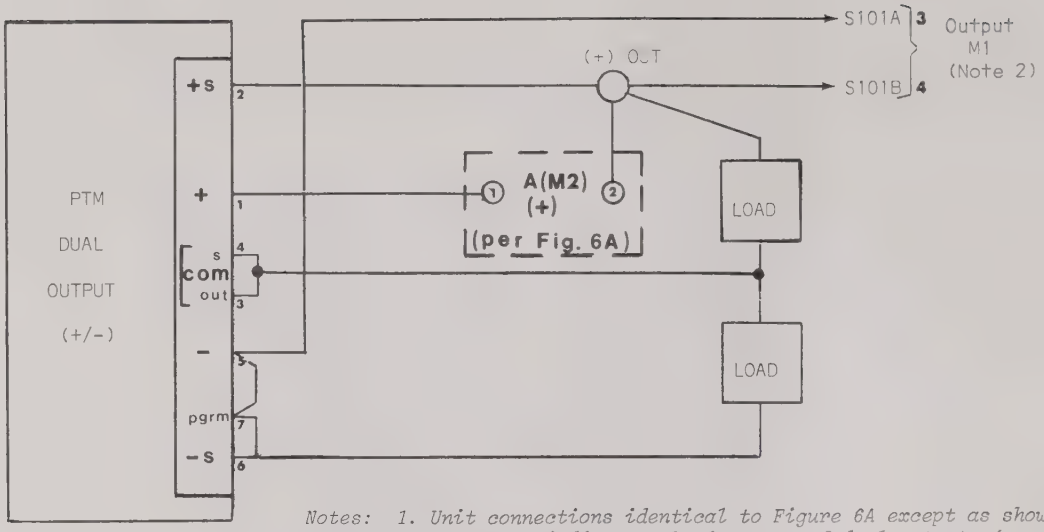
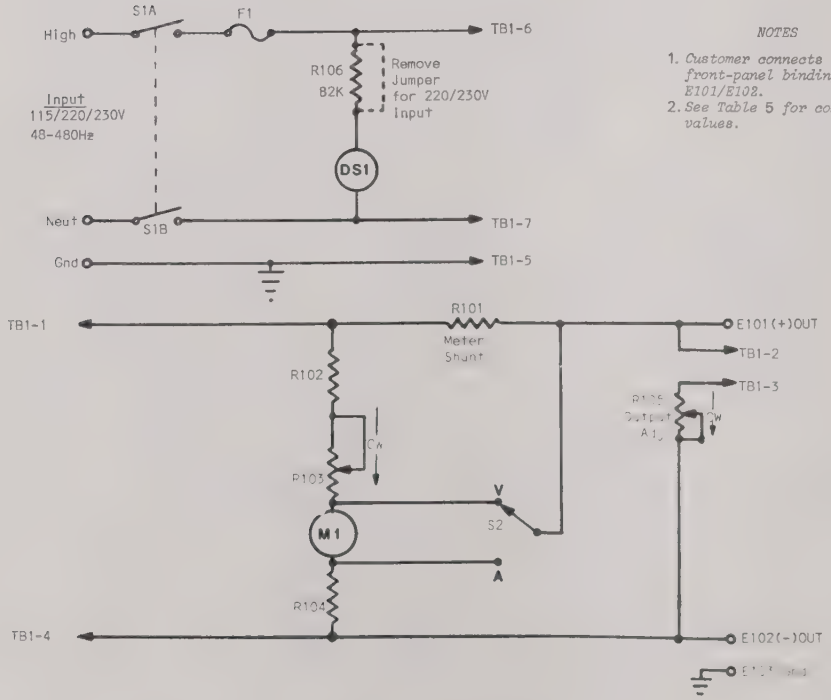


Figure 6(A)
Single-Output Module Wiring Diagram
PM300/500 Meter Panels
(See Tables 7A/B for component values)



Notes: 1. *Unit connections identical to Figure 6A except as shown*
2. *Output VM indicates absolute sum of dual outputs (eg., 30V for dual ±15V)*

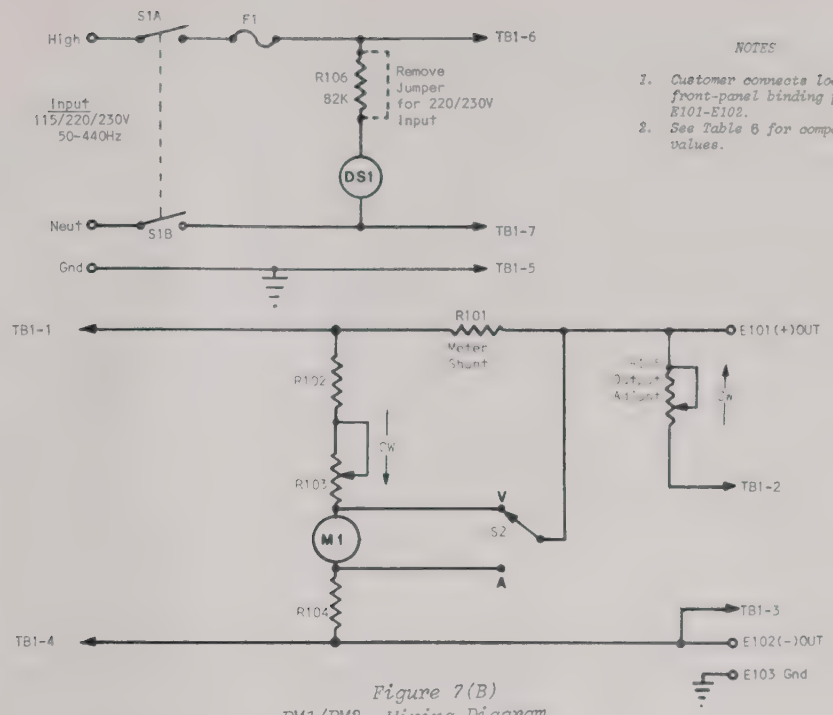
Figure 6(B)
PTM Dual-Output Wiring Diagram
PM300/500 Meter Panels



NOTES

1. *Customer connects load to front-panel binding posts E101/E102.*
2. *See Table 5 for component values.*

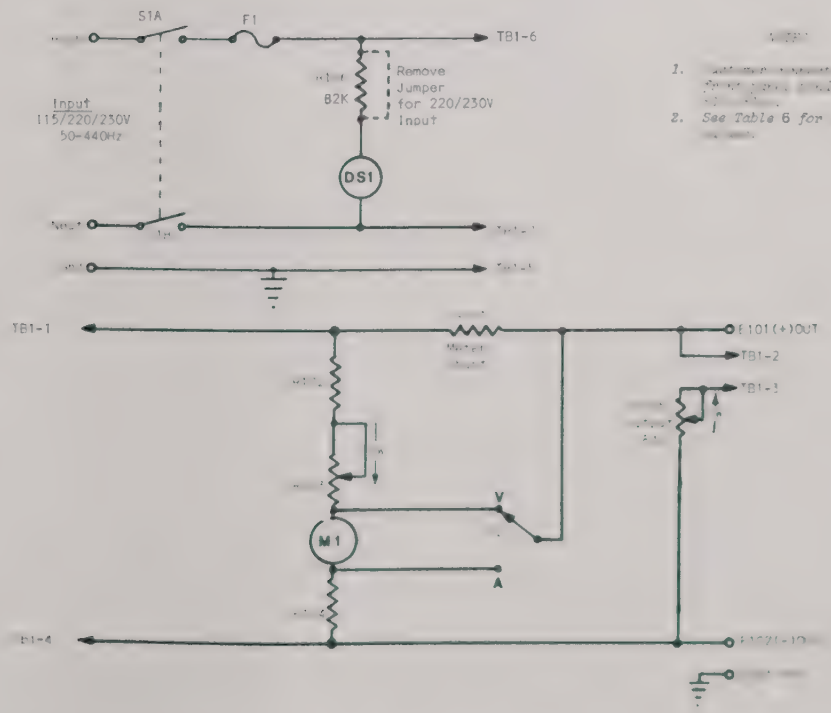
Figure 7(A)
PM1/PM2 Wiring Diagram
QSA Series



NOTES

1. *Customer connects load to front-panel binding posts E101-E102.*
2. *See Table 6 for component values.*

Figure 7(B)
PM1/PM2 Wiring Diagram
PTM 3V/5V Units



1.
2. *See Table 6 for component*

PANEL POTENTIOMETER OPTIONS
FOR
PM 300/500 RACKS
(see Table 8 for Potentiometer values)

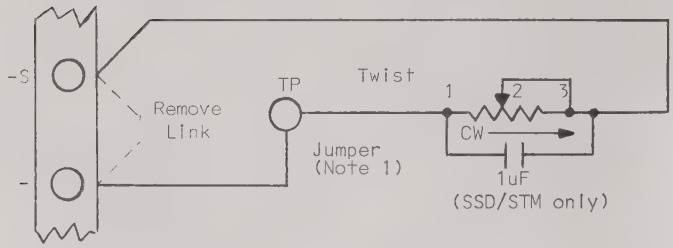


Figure 8 (A)
SSD/STM (All Models)
QSA Modules I, II, III
PTM (All but 3V/5V Models)

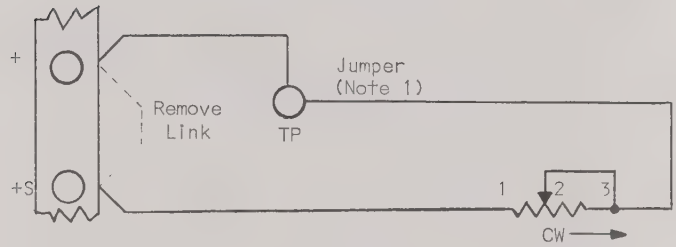


Figure 8 (B)
PTM 3V/5V Models
(Positive Sensing)

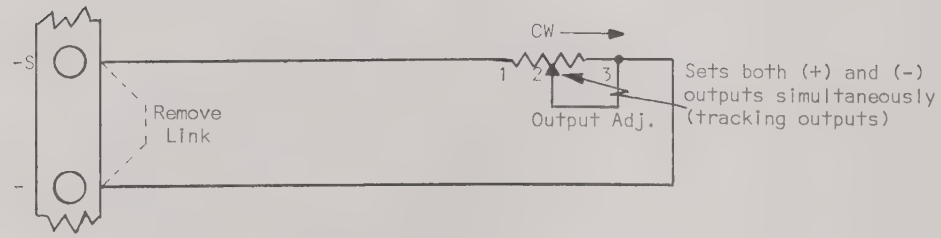


Figure 8 (C)
PTM Dual Output Models

NOTES:
1. *For remote sensing, remove jumper and connect wire from TP to remote load. This wire is then the sensing lead.*
2. *Panel potentiometers are mounted below corresponding output ammeter.*
3. *See Table 4 for open sense-lead diode protection options.*

Table 4
Diode Connections For
Open Sense-Lead Protection

Model			Diode #1 (+) Sense		Diode #2 (-) Sense	
			Anode	Cathode	Anode	Cathode
[illegible]	Standard Units		Terminal 2	Terminal 1	Terminal 4	Terminal 3
	With Panel Pot. Option		2	1	4	3
QSA	Standard Units		1	2	3	4
	With Panel Pot. Option		1	2	3	4
PTM	Standard Units		1	2	3	4
	With Panel Pot. Option	2V, 5V	1	2	3	4
		12-28V	1	2	3	4
[illegible]	Standard Units*		1	2	6	5
	With Panel Pot. Option*		1	2	6	5

NOTES

1. *Diodes 100V, 1A (Sorensen P/N 587565-1 or equivalent)*
2. *Refer to Figures 8A/B/C when using panel potentiometer option*

* Connect a 3rd diode: anode to terminal 3, cathode to terminal 4

REPLACEABLE PARTS LISTS

Tables 5 through 8 summarize the replaceable electrical parts for the PM1 (3-1/2"), PM2 (5-1/4"), and the PM300/500 series rack-adapter meter panels. Use the Sorensen part number when ordering parts directly from:

Sorensen Company
Distribution Center
25 Industrial Road
Grenier Industrial Village
Londonderry, N. H. 03063

Table 5 -Replaceable Parts - PM1/PM2 (QSA Models)
(Ref. Figure 7A)

Circuit Symbol	Item Description	Sorensen Part No.
DS1	Pilot Lamp	43-353
F1 (Line Fuse)	3/4A	42-404
	1A	42-880
	1.5A	42-407
	2A	42-408
	2.5A	42-1850
	4A	42-847
	5A	42-413
	6A	42-415
M1 (Volts/Amperes) Dual Readout Meter	Range (V/A)	
	10/10	94-823-23
	10/20	94-823-24
	10/25	94-823-25
	15/3	94-823-4
	15/6	94-823-9
	20/2	94-823-10
	20/4	94-823-8
	20/8	94-823-11
	20/20	94-823-26
	30/1.5	94-823-3
	30/3	94-823-12
	30/6	94-823-13
	30/15	94-823-27
	40/1	94-823-14
	40/2	94-823-7
	40/4	94-823-15
	40/8	94-823-28
	40/20	94-823-29
	80/.8	94-823-16
	80/2	94-823-17
	150/1.5	94-823-19
	200/.8	94-823-20
	250/.5	94-823-21
	400/.2	94-823-22

(Cont'd)

Table 5 - Replaceable Parts - PM1/PM2 (QSA Models) (cont'd)
(Ref. Figure 7A)

Circuit Symbol	*Item Description*		*Sorensen Part No.*
R101 (Meter Shunt)	*Value (ohms)*	*Meter Range (A)*	
	1.0	0.2, 0.5	28-1253
	0.24	0.8, 1.0, 1.5	28-1252
	0.100	2.0	190-3960
	0.063	3.0	190-3959
	0.050	4.0	190-3958
	0.032	6.0	190-3957
	0.020	10.0	190-3955
	0.013	15.0	190-3954
	0.008	20.0, 25.0	190-3953
R102 (Meter Res.)	68, 1/2W, 10%	1.0	280-1145P32
	300, 1/2W, 10%	0.5	280-1145P54
	180, 1/2W, 10%	1.5	280-1145P47
R103 (Ammeter Cal.)	200,2W Variable	---	29-524
R104 (VM Multiplier)		Meter Range (V)	
	10K, 1/8W, 1%	10	586250-122
	15K, 1/8W, 1%	15	586250-185
	20K, 1/8W, 1%	20	586250-186
	30.1K, 1/8W, 1%	30	586250-145
	40.2K, 1/8W, 1%	40	586250-151
	80.6K, 1/2W, 1%	80	280-7210P48
	150K, 1/2W,1%	150	280-7210P50
	200K, 1/2W, 1%	200	280-7210P51
	249K, 1/2W, 1%	250	280-7210P52
	402K, 1/2W, 1%	400	280-7210P54
R105 (Voltage Adjust Potentiometer, 2W)		Model	
	750	5V	29-558
	1.2K	10V	29-559
	0.4K	12V	29-560
	0.6K	18V	29-561
	1K	28V	29-562
	2K	48V	29-563
	2.5K	75V	29-564
	4K	120V	29-565
	8K	175V	29-566
	17K	265V	29-567
R106 (Pilot Lamp Resistor)	82K, 1/2W, 10%	---	280-1145P143
S1 (AC Line Switch)	D.P.S.T., 10A@ 250V/15A@ 125V		45-112
S2 (Volts/Amps Selector)	S.P.D.T., 5A@ 115V		45-165

Table 6 - Replaceable Parts - PM1/PM2 (PTM Models)
(Ref. Figures 7B, C)

Circuit Symbol	Item Description	Sorensen Part No.
DS1	See Table 5	
F1 (Line Fuse)	1A	42-880
	1.5A (SB)	42-1859
	2.5A (SB)	226-7177P23
	4A (SB)	226-7177P14
M1 (VM/AM, Dual)		
R101 thru R104	See Table 5	
R105 (Voltage Adjust)	1K (3, 5V)	29-562
	2.5K (12, 15V)	29-564
	4K (24, 28V)	29-565
R106, S1, S2	See Table 5	

Table 7A - Common Parts-PM300/PM500 Meter Panels (Figure 6)

Meters		
M1	Voltmeter, Multi-Range (0-15/30/60)	587359-1
M2	Ammeter (See Table 7B)	
Resistors		
R101	Multiplier,30.1K,1/8W,1%	586250-185
R102	Multiplier,15K,1/8W, 1%	586250-145
R103	Meter Shunt (See Table 7B)	
R104	Variable. 50 ohms (Meter Cal)	585348-1
R113	Multiplier,91K,1/2W,2%	586056-120
R114	Multiplier,150K,1/2W,2%	586056-125
R115	Multiplier,300K,1/2W,2%	586056-132
S101	Output Selector Switch	587443-1

Table 7B-Specific Parts-PM300/PM500 Meter Panels (Figure 6)

Ammeter Rating (A)	(M2) Part Number	(R103) Shunt Part Number
0-0.3	587358-14	587599-5
0-0.6	587358-1	587599-4
0-1	587358-2	587599-3
0-2	587358-3	587599-2
0-3	587358-4	587599-1
0-5	587358-5	587560-3
0-10	587358-6	587560-2
0-15	587358-12	587560-1
0-20	587358-7	587559-3
0-30	587358-8	587559-2
0-40	587358-9	587559-1
0-60	587358-10	588151-1
0-80	587358-13	588151-7
0-120	587358-11	588151-2

Table 8 Optional Panel Potentiometer Selector
(PM300/500 Rack Assemblies)

Panel potentiometers are mounted below corresponding panel ammeter, and are adjusted to the values listed below. Order Bourns type 3059J-1-XXXM, where XXX is the 3-digit suffix code noted in the table.

STM Models (Add 1.0uF across Pot. per Figure 8A)

Model Voltage (Nom.)	Potentiometer (ohms)	Bourns Suffix Code	Potentiometer Setting (V)	Min. Panel Range (V)
3.5V	2K	-202	3.0	[illegible]
5V	2K	-202	4.5	[illegible]
9V	5K	-502	6.0	[illegible]
12V	5K	-502	9.5	[illegible]
15V	5K	-502	13.0	[illegible]
18V	5K	-502	16.0	[illegible]
24V	10K	-103	19.0	[illegible]
28V	10K	-103	24.0	[illegible]
36V	20K	-203	29.0	[illegible]
48V	20K	-203	42.0	[illegible]

SSD Models (Add 1.0uF across Pot. per Figure 8A)

2V	5K	-502	1.8	[illegible]
5V	5K	-502	4.7	[illegible]
9V	5K	-502	6.5	[illegible]
12V	5K	-502	9.5	[illegible]
15V	10K	-103	13.0	[illegible]
18V	10K	-103	16.0	[illegible]
24V	10K	-103	20.0	[illegible]
28V	20K	-203	25.0	[illegible]
36V	20K	-203	32.0	[illegible]
48V	20K	-203	42.0	[illegible]

QSA Models (Ref. Figure 8A)

5V	[illegible]	-501	[illegible]	[illegible]
10V	[illegible]	-102	[illegible]	[illegible]
12V	[illegible]	-501	[illegible]	[illegible]
18V	[illegible]	-501	[illegible]	[illegible]
28V	[illegible]	-501	[illegible]	[illegible]
48V	[illegible]	-102	[illegible]	[illegible]
75V	[illegible]	-102	[illegible]	[illegible]
120V	[illegible]	-102	110.0	110-130
175V	[illegible]	-502	150.0	150-200
265V	[illegible]	-502	230.0	230-280

PTM Models (Ref. Figure 8A/8B)

3V	1K	-102	[illegible]	[illegible]
5V	1K	-102	[illegible]	[illegible]
12V	1K	-102	[illegible]	[illegible]
15V	1K	-102	[illegible]	[illegible]
24V	2K	-202	[illegible]	[illegible]
28V	2K	-202	[illegible]	[illegible]

PTM Dual Models (Ref. Figure 8C)

+5V	[illegible]	-102	[illegible]	4.75-5.5
±12V	[illegible]	-202	[illegible]	11-13
±15V	[illegible]	-202	[illegible]	14-16

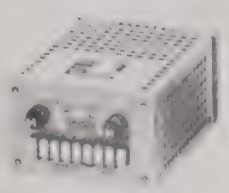
MODULE MODELS

MODULE I
3.313" x 3.875" x 6.5"

QSA

PTM	3-4
	5-4
	12-2.7
	15-2.4
	24-1.6
	28-1.4
QSA	10-1.4
	18-1.1
	48- .4
PTM	12-1D
	15-.8D
	5/12DI

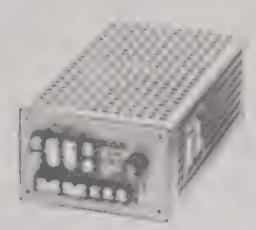
MODULE II
3.313" x 5.125" x 6.5"



PTM

PTM	3-7
	5-7
	12-4.4
	15-3.5
	24-2.3
	28-2.0
QSA	10-2.2
	18-1.9
	48- .8
	75- .5
PTM	12-1.6D
	15-1.5D
	5/12DII

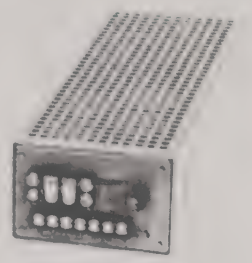
MODULE III
3.313" x 5.125" x 9.5"



STM

PTM	3-11	STM	3.5-24	SSD	2-30
	5-11		5-24		5-30
	12-6.5		9-12		9-20
	15-5.5		12-12		12-15
	24-4		15-10		15-12
	28-3.5		18-10		18-10.5
			24-8.5		24-8.5
QSA	10-3.7		28-7		28-7
	18-3.0		36-4		36-5
	48-1.2		48-4		48-4
	75- .8				
	120- .5				
	175- .25	PTM	12-3D		
	265- .15		15-2.8D		
			5/12DIII		

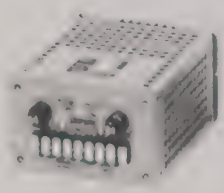
MODULE IIIA
3.313" x 5.125" x 14"



STM

STM	3.5-36	SSD	2-45
	5-36		5-45
	9-20		9-30
	12-20		12-22
	15-15		15-18
	18-15		18-16
	24-13		24-13
	28-11		28-11
	36-6		36-8
	48-6		48-6

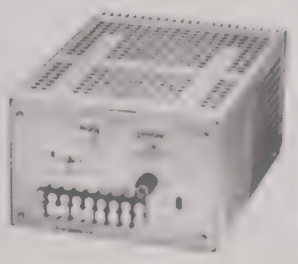
MODULE IIIB
5.125" x 5.125" x 9.5"



PTM

PTM	3-16
	5-16
	12-10.5
	15-9.5
	24-6.8
	28-6

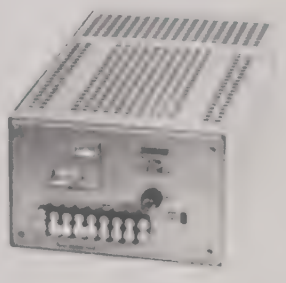
MODULE IVA
4.938" x 7.5" x 10.5"



STM

STM	3.5-60	SSD	2-75
	5-60		5-75
	9-30		9-50
	12-30		12-38
	15-24		15-32
	18-24		24-22
	24-21		28-18
	28-18		36-13
	36-10		48-10
	48-10		

MODULE VI
4.938" x 7.5" x 14"



STM

STM	3.5-100	SSD	2-120
	5-100		5-120
	9-50		9-80
	12-50		12-60
	15-32		15-45
	18-32		24-32
	24-28		28-25
	28-24		36-19
	36-14		48-15
	48-14		

REQUIREMENTS ASSESSMENT AID

Date _____

From:

Name _____ Title _____

Company _____

Address _____

City _____ State _____ Zip _____ Tel. No. _____

Please send us your pricing based on the following specifications:

POWER SUPPLY SELECTION

Output No.	Voltage	Current	Sorensen Model	Module Size
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

	300 Series		500 Series	
Rack Type:	AC-300	☐	AC-500	☐
	AC-318	☐	AC-518	☐
	AC-320	☐	AC-520	☐
Meter Panels:	PM-300	☐	PM-500	☐
	PM1 (AC-300 only)	☐	PM2 (AC-500 only)	☐
Blank Panels:	PF-300	☐	PF-500	☐
	PF-1	☐	PF-4	☐
	PF-2	☐	PF-5	☐

Outputs to be metered (Output No.): _____ , _____ , _____ , _____ , _____
(Maximum number limited to 4 for PM1 or PM2. Limited to 5 for PM300 or PM500.)

TYPICAL OPTIONS

	Rack Model	Sorensen Slide Kit No.	
Chassis Slides:	AC-318	587552-1	☐
	AC-320	587552-2	☐
	AC-518	587552-1	☐
	AC-520	587552-2	☐

- On/Off circuit breaker for meter panels: PM-300 ☐, PM-500 ☐ (Installed in place of 5th ammeter)
- BITE circuitry (maximum number limited to 5) Output No. _____ , _____ , _____ , _____
- Redundant Outputs: No. _____ & _____ ; _____ & _____ .
- Front-panel output adjustments on PM-300 & PM-500: ☐
  (Outputs shall correspond to meter position listed above)
- Special output connectors (Specify) _____
- Special panel configurations: (Explain) _____

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4. Please have a Sorensen Technical Representative call ☐
5. Please place my name on your mailing list to receive all new data ☐
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